

What is Claimed is:

1. A deck of a tape recorder comprising:

a deck chassis; a tape cassette housing; and

5 a locking device for the tape cassette housing of the tape recorder, which comprises:

a locking lever;

a locking recess formed within the locking lever; and

a locking protrusion, comprising at least one edge formed at an outer surface such that the at least one edge comes into contact with a corner of the locking  
10 recess when the tape cassette housing is locked onto the deck chassis.

2. The deck of a tape recorder according to claim 1, wherein the at least one edge of the locking protrusion comprises cutting and bending a part of the deck chassis toward an interior of the deck chassis.

15

3. The deck of a tape recorder according to claim 2, wherein the at least one edge of the locking protrusion further comprises:

a top end of the locking protrusion bent at or about 90° toward the interior of the deck chassis.

20

4. The deck of a tape recorder according to claim 2, wherein the at least one edge of the locking protrusion further comprises:

a side end of the locking protrusion bent at or about 90° toward the interior of the deck chassis.

25

5. The deck of a tape recorder according to claim 2, wherein the locking recess comprises:

a corner adapted to come into contact with the at least one edge of the locking protrusion and then mate with the locking recess thereby locking the tape cassette  
30 housing.

6. The deck of a tape recorder according to claim 1, wherein:  
the locking lever comprises an unlocking protrusion; and  
the deck chassis comprises an unlocking switch and an unlocking lever, the  
combination of the unlocking protrusion, unlocking switch and unlocking lever are  
5 adapted to release the tape cassette housing after it is locked by sliding the unlocking  
switch to move the unlocking lever, which contacts the unlocking protrusion which  
contacts and causes the locking lever to rotate and unlock from a locked condition by  
releasing the locking protrusion from the locking recess.

10 7. The deck of a tape recorder according to claim 1, wherein:  
the locking lever further is adapted to pivot within a range determined by a  
regulating protrusion and a second hinge, and hinged to a side of the tape cassette  
housing by a first hinge, and connected to a first link member by a resilient member, the  
resilient member adapted to allow the tape cassette housing to resiliently ascend and  
15 descend within the deck chassis.

8. A locking lever adapted for use with a locking device for a tape cassette  
housing of a tape recorder, wherein the locking lever comprises:

20 a locking recess formed within the locking lever; and  
a locking protrusion, comprising at least one edge formed at an outer surface  
such that the at least one edge comes into contact with a corner of the locking recess  
when the tape cassette housing is locked onto a deck chassis.

25 9. The locking lever according to claim 8, wherein the locking protrusion  
comprises:

at least one edge, formed by cutting and bending a part of the deck chassis  
toward an interior of the deck chassis.

30 10. The locking lever according to claim 8, wherein the locking recess  
comprises:

a corner adapted to come into contact with the at least one edge and then mate

with the locking recess thereby locking the tape cassette housing.

11. The locking lever according to claim 8 further comprising:

an unlocking protrusion; and

5 wherein the deck chassis comprises an unlocking switch and an unlocking lever, the combination of the unlocking protrusion, unlocking switch and unlocking lever are adapted to release the tape cassette housing after it is locked by sliding the unlocking switch to move the unlocking lever, which contacts the unlocking protrusion which contacts and causes the locking lever to rotate and unlock from a locked condition by  
10 releasing the locking protrusion from the locking recess.

12. The locking lever according to claim 8 adapted to pivot within a range determined by a regulating protrusion and a second hinge, and hinged to a side of the tape cassette housing by a first hinge, and connected to a first link member by a resilient  
15 member, the resilient member adapted to allow the tape cassette housing to resiliently ascend and descend within the deck chassis.

13. A method for locking a tape cassette housing of tape cassette, comprising:

20 pressing an upper surface of the tape cassette housing descendly towards the deck chassis;

pivoting a second link member along a second guide protrusion in a direction in which a lower end of a first link members ascends;

slidably connecting a first guide protrusions of a deck chassis to a first guide  
25 rails of lower ends of a first link member, wherein the first and the second link members and the interactively move, allowing the tape cassette housing to closely contact the deck chassis, whereupon a guide surface of a locking lever slides along an edge formed at a side of a locking protrusion until the edge comes into close contact with a locking recess of the locking lever;

30 pivoting the locking lever about a third hinge such that a resilient member attached to the locking lever is expanded; and

locking the tape cassette housing when the resilient member recovers as the tape

cassette housing substantially contacts the deck chassis inserting the locking protrusion into the locking recess.

14. A locking device for a tape cassette housing of a tape recorder  
5 comprising:

a locking lever;

a locking recess formed within the locking lever; and

a locking protrusion, comprising at least one edge formed at an outer  
surface such that the at least one edge comes into contact with a corner of the locking  
10 recess when the tape cassette housing is locked onto a deck chassis.

15. The locking device according to claim 14, wherein the at least one edge  
of the locking protrusion comprises cutting and bending a part of the deck chassis  
toward an interior of the deck chassis.

16. The locking device according to claim 15, wherein the at least one edge  
of the locking protrusion further comprises:

a top end of the locking protrusion bent at or about 90° toward the interior of the  
deck chassis.

17. The locking device according to claim 15, wherein the at least one edge  
of the locking protrusion further comprises:

a side end of the locking protrusion bent at or about 90° toward the interior of  
the deck chassis.

18. The locking device according to claim 15, wherein the locking recess  
comprises:

a corner adapted to come into contact with the at least one edge of the locking  
protrusion and then mate with the locking recess thereby locking the tape cassette  
housing.

19. The locking device according to claim 14, wherein:

the locking lever comprises an unlocking protrusion; and

the deck chassis comprises an unlocking switch and an unlocking lever, the combination of the unlocking protrusion, unlocking switch and unlocking lever are adapted to release the tape cassette housing after it is locked by sliding the unlocking switch to move the unlocking lever, which contacts the unlocking protrusion which contacts and causes the locking lever to rotate and unlock from a locked condition by releasing the locking protrusion from the locking recess.

20. The locking device according to claim 14 wherein:

the locking lever is adapted to pivot within a range determined by a regulating protrusion and a second hinge, and hinged to a side of the tape cassette housing by a first hinge, and connected to a first link member by a resilient member, the resilient member adapted to allow the tape cassette housing to resiliently ascend and descend within the deck chassis.